ESO 1902

# 1992 AGRICULTURAL OUTLOOK

# GRAINS AND OILSEEDS

## A Discussion Guide for County Agents

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**SLIDE 1: WORLD GRAIN AND OILSEED: PRODUCTION AND USE**

A. Markets for U.S. grains and oilseeds are global

1. In the last 10 years, exports have accounted for:

a. 56% of all wheat utilization

b. 38% of all soybean disappearance

c. 25% of all corn use

d. 4 of every 10 acres harvested

e. 43 cents of every dollar of farm income earned from grains and oilseeds comes from export sales

B. Over time, annual worldwide production and use are closely matched

C. Production exceeded use 7 of the last 10 years

1. Stocks accumulate

2. Values (prices) depreciate

a. prices in 1986/87 averaged 40% **below** 1980/81, a period when supply equaled demand

b. prices in 1991/92 will likely average 25% **below** 1980/81

D. Use exceeded production in '87 and '88

1. Production declines reflect:

a. acreage reduction

1) domestic farm programs
2) foreign acreage

b. drought-reduced yields

2. Global stocks were drawn down

a. "seller demand" for inventories, bid up market prices

E. Production exceeded use in '89 and '90

1. stocks increased

2. prices deteriorated

F. Production expected to equal use in 1991/92

1. Growing population assures increased use so long as supply is available

2. Improved diets (more meat) in developing economies

3. Year-to-year declines only three in last 30 years; drought-related

G. Comparing trends in U.S. production with the rest of the world:

1. The U.S. has accounted for virtually all of the decline in production

2. Since 1979:

a. non-U.S. production has trended **upward**

--74% in 1979
--82% in 1991

b. U.S. production has trended **downward**

--26% in 1979
--18% in 1990

3. This increasing global competitiveness helps explain the U.S. stake in bringing about international harmonization of farm policies.

a. reduction in production subsidies in other countries

b. spreading the production adjustment process to other countries

**SLIDE 2: WORLD SOYBEAN PRODUCTION**

A. Global production continues to grow

1. Minor reduction last two years

a. reduced Brazilian production

b. low U.S. yields

B. U.S. losing preeminent position

1. 66% in 1979

2. 49% in 1991

**SLIDE 3: WORLD WHEAT PRODUCTION**

A. Global production continues to grow

1. Minor reduction in '91

--15% set-aside in U.S.
--low U.S. yield

B. U.S. losing world share

1. 14% in 1979

2. 10% in 1991

**SLIDE 4: WORLD CORN PRODUCTION**

A. Global production continues to grow

1. Slow but steady growth

2. Year-to-year variation in the U.S.

a. drought - '83

b. drought and set-aside - '88

c. drought - '91

B. U.S. losing share

1. 47% in 1979

2. 38% in 1991

**SLIDE 5: CORN: SUPPLY AND USE**

| | 1990/91 | % change | projected 1991/92 | % change |
|---|---|---|---|---|
| planted acreage (mil) | 74.2 | +2.7 | 75.9 | +2 |
| harvested ac. (mil) | 67.0 | +3.6 | 68.7 | +3 |
| yield (bu/ac) | 118.5 | +1.9 | 108.8 | -8 |
| production (mil bu) | 7,933 | +5.4 | 7,479 | -6 |
| carry-in (mil bu) | 1,344 | -30.1 | 1,521 | +13 |
| total supply (mil bu) | 9,281 | -1.9 | 9,002 | -3 |
| feed use (mil bu) | 4,710 | +5.7 | 4,800 | +2 |
| total domestic use (mil bu) | 6,035 | +5.0 | 6,150 | +2 |
| exports (mil bu) | 1,725 | -27.2 | 1,650 | -4 |
| total use (mil bu) | 7,760 | -4.4 | 7,800 | +1 |
| carry-out (mil bu) | 1,521 | +13.2 | 1,202 | -21 |

A. 1990/91 comments:

1. Production was up 5% because of higher yield and increased acreage

   --average yields were near normal, about 2 bu. below trend line

2. Total supplies were down only 2% because of the lower carry-in (70% of the year earlier)

3. Exports were a disaster, down 27%

   --due mostly to EC and USSR, big wheat crops encouraged wheat feeding; Soviet instability added to lack of demand

4. Downward adjustment in use was tempered by increased domestic feeding

   a. feeding increased about 260 mil. bu., setting a record 4.71 bil. bu.

   b. exports decreased about 650 mil. bu., to a level near the lows for more than a decade

5. Carry-out stocks increased 13% to about 20% of annual use, next to the lowest since 1983-84 drought year

B. 1991/92 comments:

1. Total supplies are smaller than last year

   --modest decline (-6%) in production more than offset sharp increase (+13%) in carry-in

2. Marginal increase in feed use is expected

   a. feeding margins have generally been at or above break-even

   b. beef, swine, and poultry numbers increasing

3. Feed use is likely to establish a new record, 4.8 billion bushels

4. Export prospects are most uncertain at this point

   a. USSR largely absent from market

   b. negative:

      --excess wheat in world market

      --economic and political chaos

      --inadequate funds for purchase

   c. positive:

      --probable granting of additional "ag credits" to the USSR

      --efforts by the Soviets to maintain livestock production

d. export shipments have started 1991/92 at a rapid pace

--exceeding a year earlier by 32% through first couple of months of the marketing year; better than last year's slow start (down 25%)

--never recovered last year

--sustained increase doubtful this year; expect -4% decline unless Soviet buying begins in big way

--larger supplies of subsidized feed-quality wheat around the world this fall/winter indicate a sluggish export pace is likely

--China continues to export corn and import cheap wheat, cutting into our corn exports

5. Carry-out next August 31 is expected to be down 21% from a year earlier

a. much lower if exports continue at current pace

b. estimated at around 15% of annual use; lower if export strength continues

c. tight market, at or near 15-year low; could be tighter yet

**SLIDE 6: CORN: STOCKS-PRICE RELATIONSHIP**

A. Graph shows the historic relationship between year-end carry-out stocks and the season average price as a percent of the price support loan rate

B. 1990/91 Ohio price averaged $2.32

1. This was 143% of the national average loan rate of $1.62

2. Well above comparable historic levels because:

--prices had to be high enough to ensure an adequate supply from storage until the 1990 crop was made

--loan rate was the lowest in 14 years

C. For 1991/92:

1. With carry-out stocks projected to be in the 1.2 bil. bu. range, the season average price looks to be in the range of 140-160% of loan

2. With the loan rate = $1.72, this projects to an average price in the $2.40-2.80 range

**SLIDE 7: CORN: OHIO AVERAGE FARM PRICES**

A. This shows seasonal pricing patterns

B. The sharp drop in prices following the drought in 1988 is obvious; the classic short crop-long tail phenomenon

--this set the stage for relatively high prices for the 1988/89 marketing year

--drought effect carried over into 1989/90 year; reduced carry-out

C. Prices increased with the spring and summer weather scare in '90

1. Evidence of market tightness

2. Prices retreated once weather scare passed

D. '90/'91 prices demonstrate a normal return to storage coupled with a drought scare that broke in late summer

E. Projections for 1991/92 are based on what is a very stable historic seasonal pattern in years of relatively normal crops that follow normal crops

1. Actual 1990/91 Ohio average prices:

September = $2.40, the same as a year earlier

October = $2.35, higher than a year earlier

2. Prices should reach seasonal highs in early summer, at levels roughly 30-40 cents above expected harvest lows in the $2.30 neighborhood

3. Add to that a likely weather scare in May-July, and prices could easily rebound to the $2.75 mark and if exports continue strong, $3 is in sight.

**SLIDE 8: 1991 CORN PROGRAM**

A. This graph charts the returns above variable costs for a fairly typical Ohio corn grower participating in the 1992 ARP-Flex program, compared with returns without participation

B. The "break-even" price is about $2.65

--this compares to a preliminary expectation for an average 1991/92 price centering around $2.50

C. The flex acres are planted to corn for calculation purposes. Some acres will go to beans; the market, however, will likely equalize returns from corn and beans.

D. The reduced ARP will likely increase participation in next year's corn program to the 85% range

**SLIDE 9: SOYBEANS: SUPPLY AND USE**

| | | | projected | |
|---|---|---|---|---|
| | 1990/91 | % change | 1991/92 | % change |
| planted acreage (mil) | 57.8 | -4.9 | 59.8 | +3 |
| harvested ac. (mil) | 56.5 | -5.0 | 58.6 | +4 |
| yield (bu/ac) | 34.0 | +5.3 | 33.0 | -3 |
| production (mil bu) | 1,926 | +0.1 | 1,934 | 0 |
| carry-in (mil bu) | 239 | +31.3 | 329 | +38 |
| total supply (mil bu) | 2,167 | +2.8 | 2,268 | +5 |
| domestic crush (mil bu) | 1,180 | +3.0 | 1,225 | +4 |
| total domestic use (mil bu) | 1,278 | +2.5 | 1,323 | +4 |
| exports (mil bu) | 560 | -10.1 | 625 | +12 |
| total use (mil bu) | 1,838 | -1.7 | 1,948 | +6 |
| carry-out (mil bu) | 329 | +37.7 | 320 | -3 |

A. 1990/91 comments:

1. Total supply increased marginally, up 3%

   a. crop was normal, yields up and slightly lower acreage

      --U.S. accounted for only about 51% of world production, down from 60-65% in late 1970s/early 1980s, and 75% of 30 years ago

   b. carry-in was up 31% from the year earlier and down 45% from its '87 level

2. Use fell 2%

   a. loss came largely from lower exports

   b. exports decreased 10%

      --primary decline in EC imports

      --Japanese imports down slightly

3. Domestic crush up 3%

   a. soymeal exports up 16% due to decreased South American competition

   b. domestic feeding rates increased 3%, due to high livestock prices and lower prices for both meal and feed grains

4. Carry-out stocks increased by 38%, to 18% of annual use

   --about equal to long-term average, 15%

B. 1991/92 comments:

1. Acreage up 3-4% because of flex acres

   --still down 12 million acres from '79 peak

2. Production steady because of slightly lower yield

   --yet, U.S. share of world total fell to 50%

   --South American production up slightly

3. Total supplies up 5%, due to higher carry-over

   --increased use will keep prices from declining

   --have regained 70% of the use lost due to '88's short supply

4. Domestic crush will set a new record, 1.23 million bushel

   a. soymeal feeding will increase marginally

      --slight expansion in all classes of livestock

   b. soymeal exports will be steady as East Europe and USSR attempt to maintain livestock sector

5. Strong domestic demand for soyoil will continue

6. A modest increase in disappearance will offset higher carry-in; carry-out stocks will be steady

   --16% of annual use

   --the market is not tight and won't respond rapidly to new demand

**SLIDE 10: SOYBEANS: STOCKS-PRICE RELATIONSHIP**

A. 1990/91 prices averaged $5.65 in Ohio

   --113% of the $5.02 national average loan rate

   --about in line with historic price behavior when supplies are around 118% of use

B. With 1991/92 total supplies around 116% of expected use:

   --prices for the season should average 110-120% of loan

C. With the 1991 national average loan = $5.02, this implies a season average price in the $5.50-6.00 range

**SLIDE 11: 1990/91 SOYBEAN PRICE PROSPECTS**

A. Soymeal prices are projected to be in the $165-185/ton range

   1. Over the past 15 years, soy meal:corn price ratio has averaged about 2:1 (price per pound)

2. In recent years, the ratio has trended irregularly upward

   --averaged 2.3 over the past 4 years, but biased upward by low corn prices in 1987

3. Projections are based on corn price expectations in the $2.40-2.60 range and the meal:corn price ratio in the 2.1:1 to 2.2:1 range

B. Soyoil prices through next summer are trading in roughly the 19-21 cent/pound range

1. Soyoil prices seldom move much above the 20 cent level unless carry-out stocks fall below roughly 1-1.2 bil. pounds

2. Next year's carry-out is estimated at 2.4 billion pounds

C. Deducting a 50-60 cent/bu. crush margin from the projected product values yields a whole bean value in the $5.50-6.00 range, about the same as that indicated by the stocks:loan ratio, above

**SLIDE 12: SOYBEANS: OHIO AVERAGE FARM PRICES**

A. During 1988/89, prices dropped off rapidly

1. High prices in the summer of 1988 quickly discouraged buyers

2. Buyers could more easily turn to alternative supplies than in earlier droughts because of the declining U.S. share of world production

3. Average monthly prices ended the year $2.30 below where they started

4. More clearly than for corn, this demonstrates the "long market tail" in short crop years

B. 1989/90 prices exhibited a fairly normal return to a reasonably consistent pattern in previous normal crop years that follow short crop years

   --storage, except for the drought rise in July and August

C. 1990/91 prices never did recover from an expected harvest low

--exports were dismal

--storage didn't pay

D. Actual 1991/92 prices:

September = $5.60

October = $5.45

E. Post-harvest prices normally wouldn't bottom out until November or December

--strong farmer holding at harvest, October may be close to this year's low

F. A May-June high of about $6.00 is necessary to fully recover post-harvest holding costs

1. The normal seasonal pattern suggests difficulty in achieving this

2. The usual spring/summer weather scare could provide a price lift beyond holding costs

3. But, as this is after next spring's South American harvest, it will be affected by:

   a. size of the 1991 South American crop,

   b. timing of sales of the 1991 South American crop on world markets, and

   c. size of 1992 U.S. plantings, up possibly 1-1.5 million flex acres; downward price pressure as crop matures in July and August

4. Because of the uncertainty, buying a July call option may be a less risky way to speculate on price increases than storing the crop

**SLIDE 13: WHEAT: SUPPLY AND USE**

| | 1990/91 | % change | projected 1991/92 | % change |
|---|---|---|---|---|
| planted acreage (mil) | 72.2 | +8.0 | 69.9 | -3 |
| harvested ac. (mil) | 69.3 | +11.4 | 57.7 | -17 |
| yield (bu/ac) | 39.5 | +20.8 | 34.3 | -13 |
| production (mil bu) | 2,736 | +34.3 | 1,981 | -28 |
| carry-in (mil bu) | 536 | -23.6 | 866 | +62 |
| total supply (mil bu) | 3,309 | -19.8 | 2,886 | -13 |
| domestic food (mil bu) | 796 | +5.7 | 810 | +2 |
| total domestic use (mil bu) | 1,376 | +38.7 | 1,255 | -9 |
| exports (mil bu) | 1,068 | -13.4 | 1,100 | +3 |
| total use (mil bu) | 2,444 | +9.8 | 2,355 | -4 |
| carry-out (mil bu) | 866 | +61.6 | 531 | -39 |

A. 1990/91 comments:

1. Total supplies, up 20% from the lowest since 1975
2. Production was up 34%, but the lingering effect of the '88 drought reduced carry-in by another 24% to a 15-year low
3. Domestic use was up 39% because of feed use, but exports continued their freefall by another 13%; total use increased 10%
4. Carry-out increased, but was still the third lowest in 15 years

B. 1991/92 comments:

1. Lower production more than offset the higher carry-over

   a. a 17% decrease in harvested acreage

   b. lower yield, 34.3 bu./acre, down 13%

   c. a 28% decrease in total production

2. Total use will be down, -4%

   a. domestic feed use will decrease 28%

      --feed use will be confined to the usual off-quality/damaged grain

      --higher price to limit feeding

   b. exports up about 6% through first 5 months of the marketing year, expect 3% for year

      --Soviet exports could trigger price rise

3. Carry-out down 39%

   --will keep a floor under prices

**SLIDE 14: WHEAT: STOCKS-PRICE RELATIONSHIP**

A. 1990/91 Ohio prices averaged $2.56

   --131% of the national average loan rate of $1.95

B. With year-ending stocks decreasing toward 500 mil. bu., this season average price looks to be roughly 1.5 times the national average $2.04 loan rate; $2.90-3.10

C. Soft red winter wheat prices will probably exceed national averages by 10% or more

   --SRW supplies are down by 30%, exports down 63%

D. Ohio prices should average in the $2.90-3.10 range for the 1991/92 marketing year

**SLIDE 15: WHEAT: OHIO AVERAGE FARM PRICES**

A. Prices trended down after '88 drought until November '90

B. Price recovery began last fall and surged this summer and fall, when the evidence of short carry-out began to develop

--1991/92 actual prices:

June = $2.62

July = $2.70

August = $2.80

September = $3.10

October = $3.35

C. Seasonal price high in the $3.50 range expected in early 1991

1. Not likely to cover holding costs from here on

2. Reduced ARP (5%) acreage in 1992 will cause acreage and production to increase 10% in '92

**SLIDE 16: 1992 WHEAT PROGRAM**

A. Major program changes:

1. ARP decreased from 15% to 5%

2. Flex acres

a. no flex - 12-month deficiency on 95% of base acreage

b. 15% flex to wheat - 5-month deficiency on 80% of base acreage plus 15% at market price

c. 15% flex to alternate crop - 5-month deficiency on 80% of base acreage plus 15% times income from alternative crop

3. Target price held at $4.00

4. Loan rate up from $2.04 to $2.21

B. Break-even price

1. 5% ARP is about $3.88

2. 5% ARP + 15% flex to corn/beans is about $4.05

3. All well above expected price for 1992 crop in the $3 range, assuming normal weather

5. Program gain is substantial, but options are not equal

a. 15% flex in corn and/or beans is best

b. if want to harvest all 95% of base as wheat, elect no-flex, 12-month deficiency

C. Assures more planted acreage

**SLIDE 17: 1991 FLEX ACRES ECONOMICS**

A. Projections are based on:

1. Fairly typical crop yields in Ohio

2. Price expectations for 1992 crops that assume normal weather and usual price relationships

3. Variable costs based on Extension's Ohio budgets adjusted somewhat to reflect probably changes in input prices

B. Returns above variable costs (or returns to fixed costs, including land), based solely on market prices (no deficiency payments on flex acres):

1. Show a modest advantage for corn compared to soybeans

a. if use $2.35 corn and $6.00 beans, advantage shifts to beans

b. market will likely equalize

2. Show a significant advantage for either soybeans or corn compared to wheat

C. Comparisons are added for two minor crops: oats and canola

1. Market returns show little incentive for oats

--target price of $1.45 is not high enough to make the crop competitive with any of the alternatives, with our without government payments

2. Canola compares surprisingly well with soybeans

3. But, considerable risk with canola

   a. production techniques are still largely "trial and error"

   b. market is not well developed

      --relatively few experienced handlers

      --crushers are just getting established

      --essentially no secondary market to remove supplies that exceed crusher demand

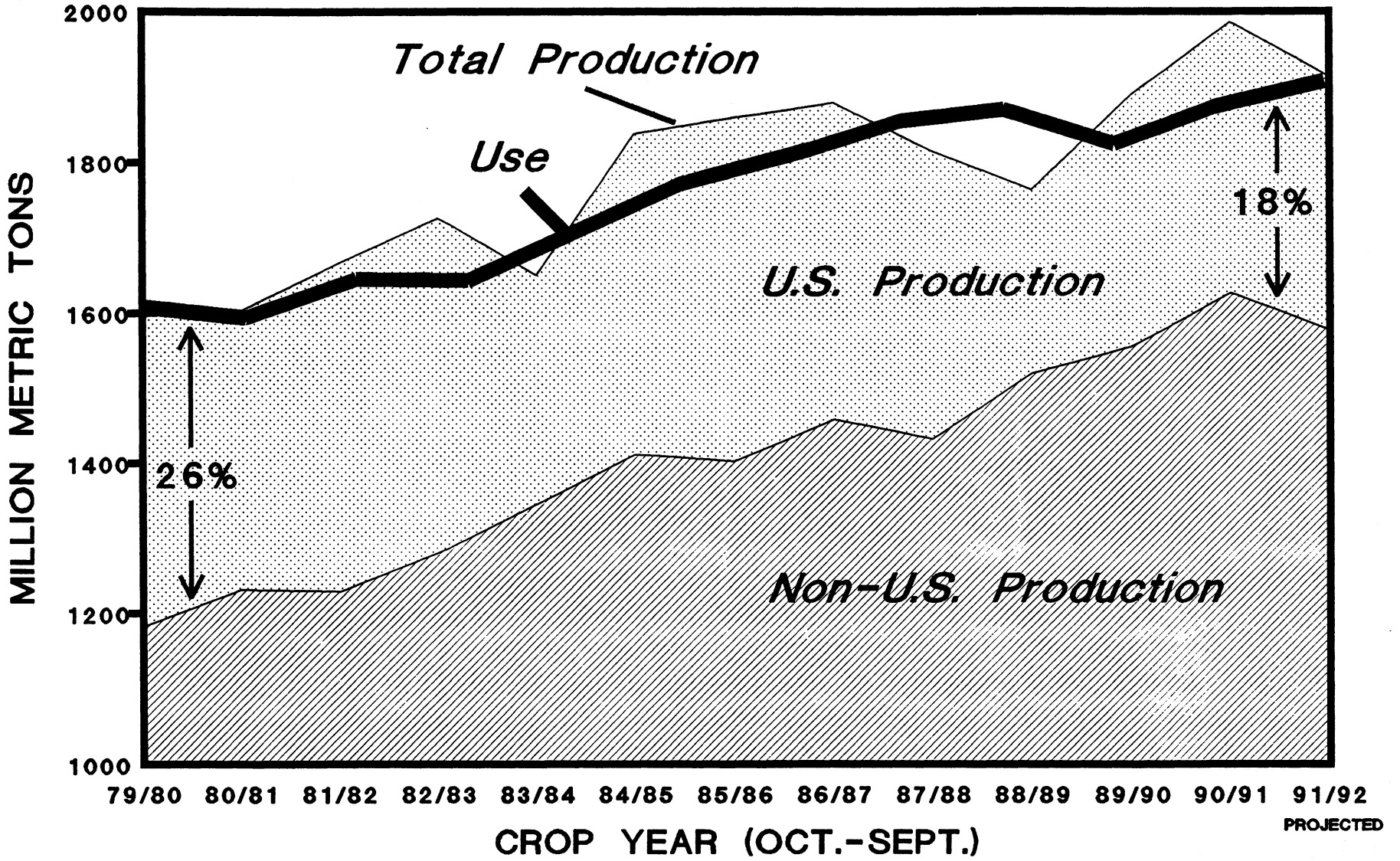
      --price relationship between canola oil and soyoil is still tentative

4. Nonetheless, potential market returns suggest that canola may be worth a trial for those willing to experiment and take some additional risks (but too late for this year's fall planting)

D. Since enactment of the 1985 farm bill, when deficiency payments were included for corn, wheat, and oats program participants, the economic incentive to plant corn on all possible permitted acres has been obvious

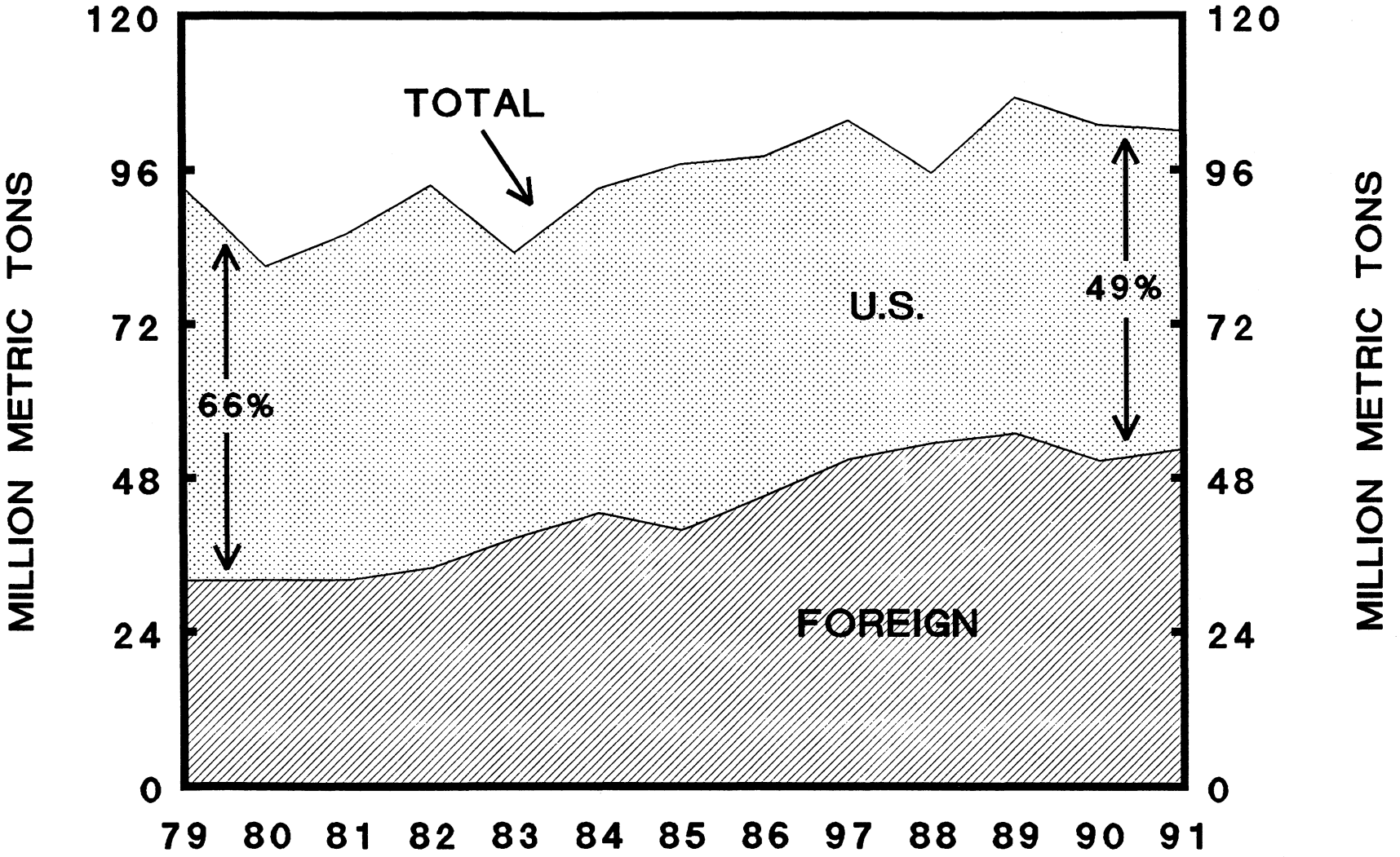
E. The 1992 triple-base plan combined with the current market outlook makes the decision less clear with respect to corn or soybeans or wheat and/or corn flex acres

# WORLD GRAIN AND OILSEED PRODUCTION AND USE

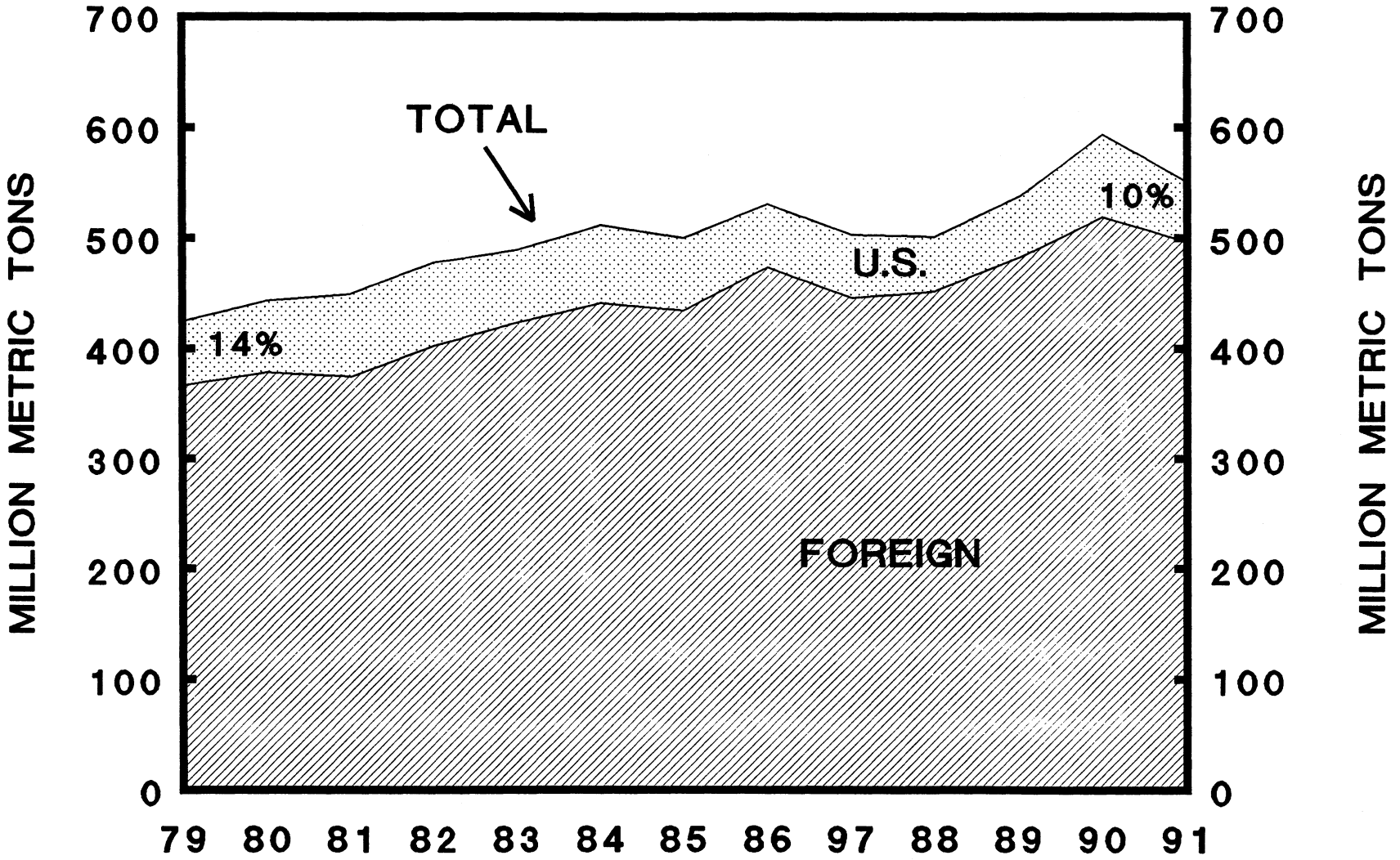



Slide 1

# WORLD SOYBEAN PRODUCTION

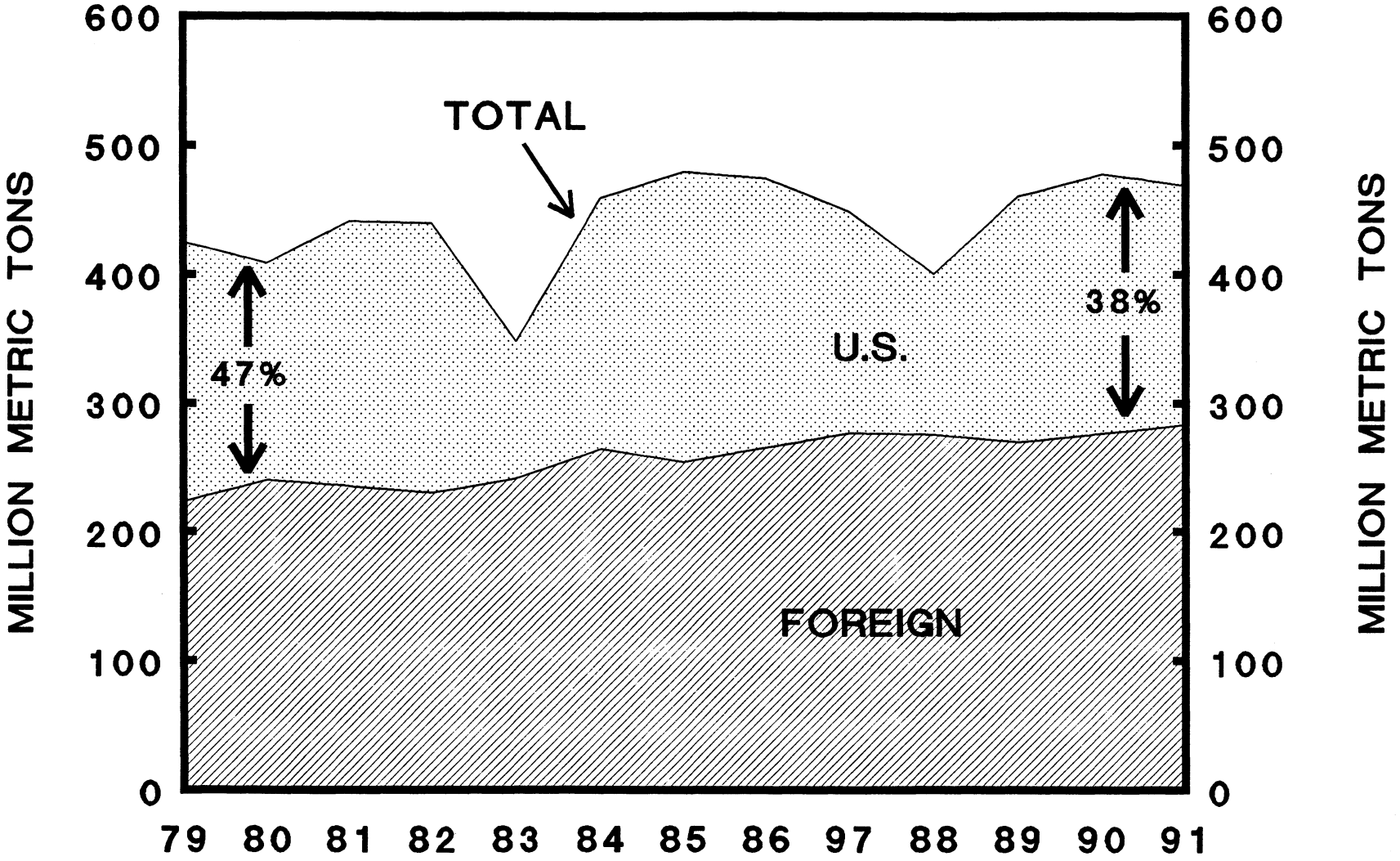


# WORLD WHEAT PRODUCTION



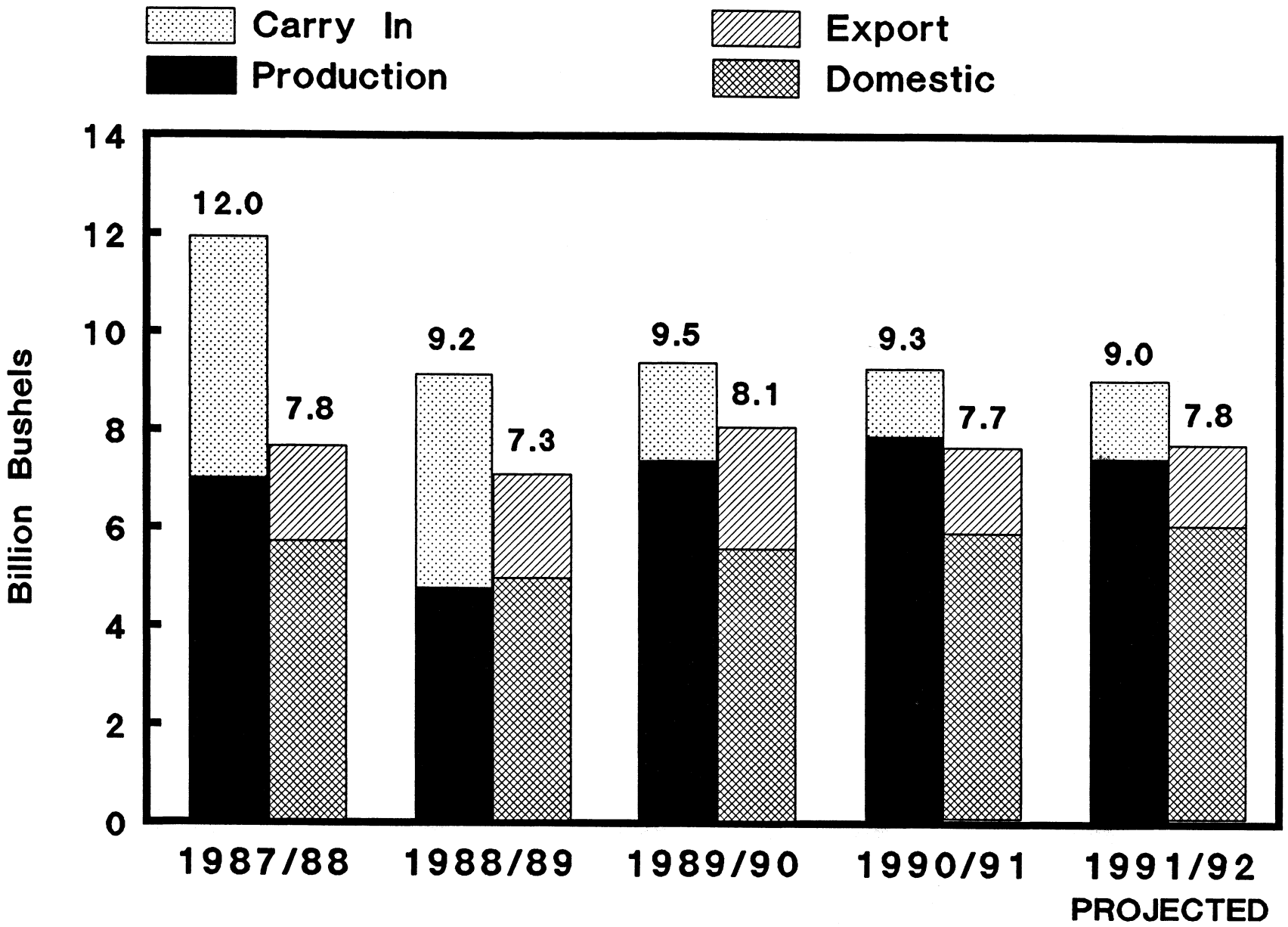

Slide 3

# WORLD CORN PRODUCTION

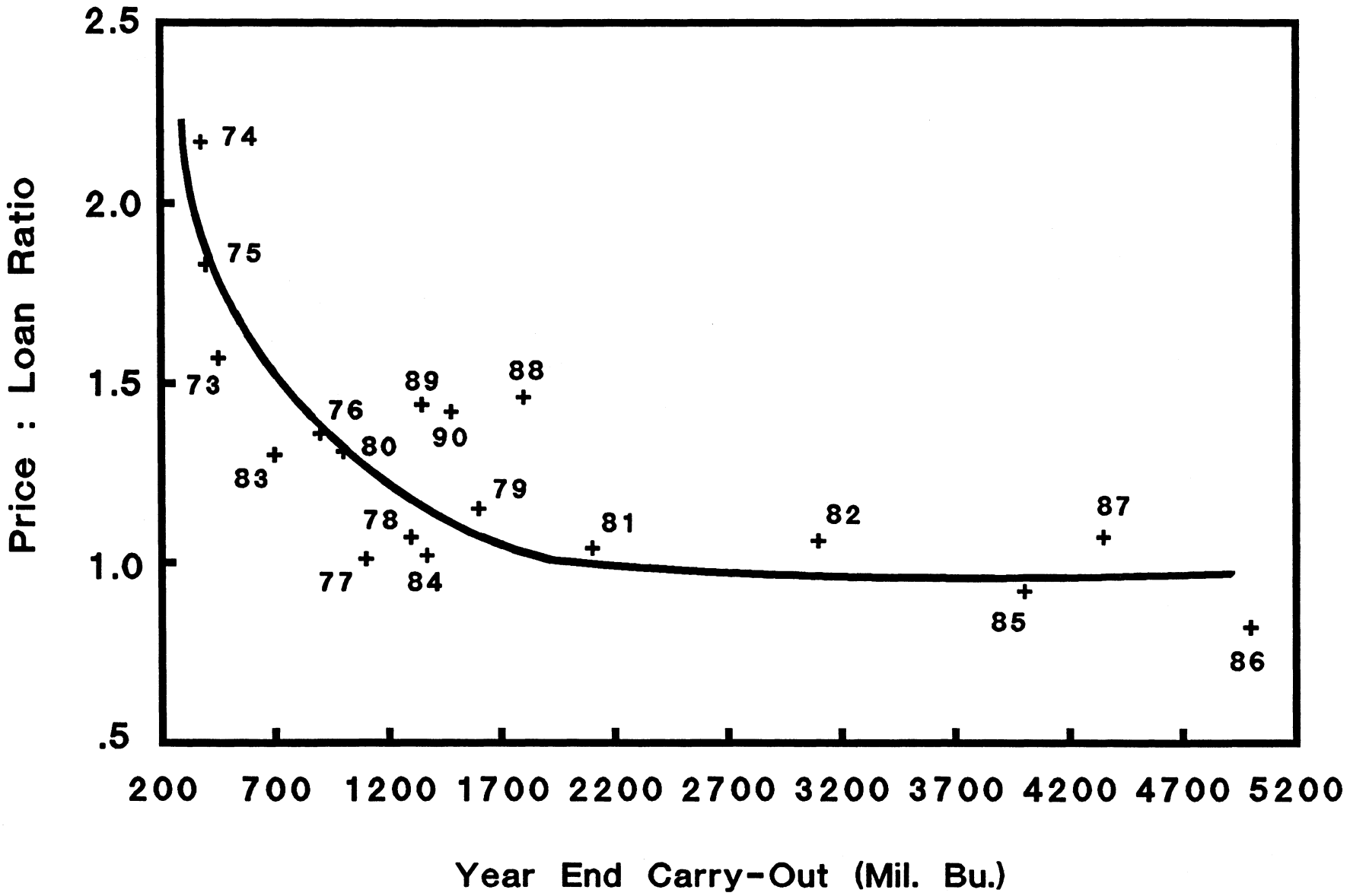



Slide 4

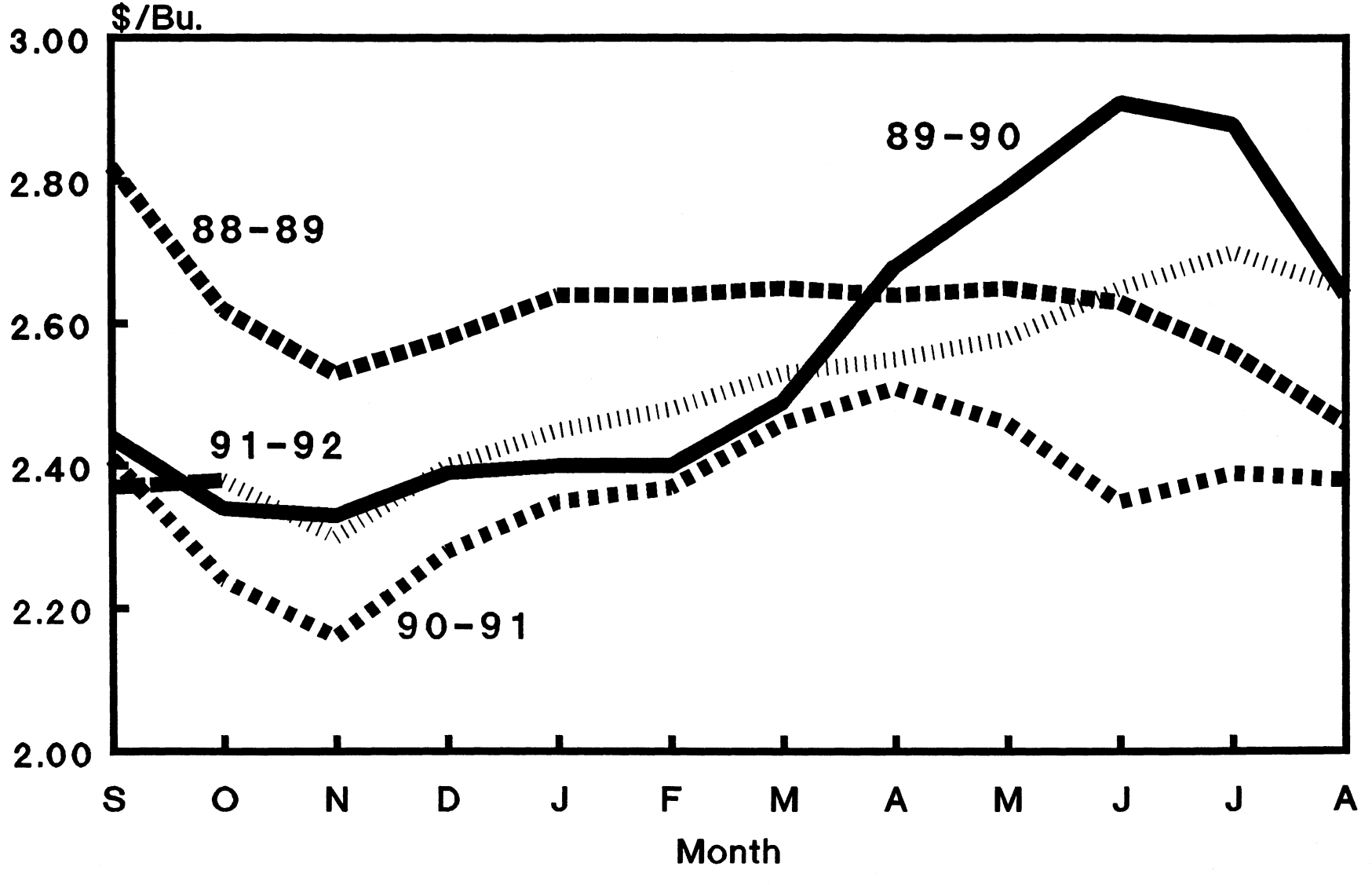
# CORN: SUPPLY AND USE



# CORN: STOCKS-PRICE RELATIONSHIP

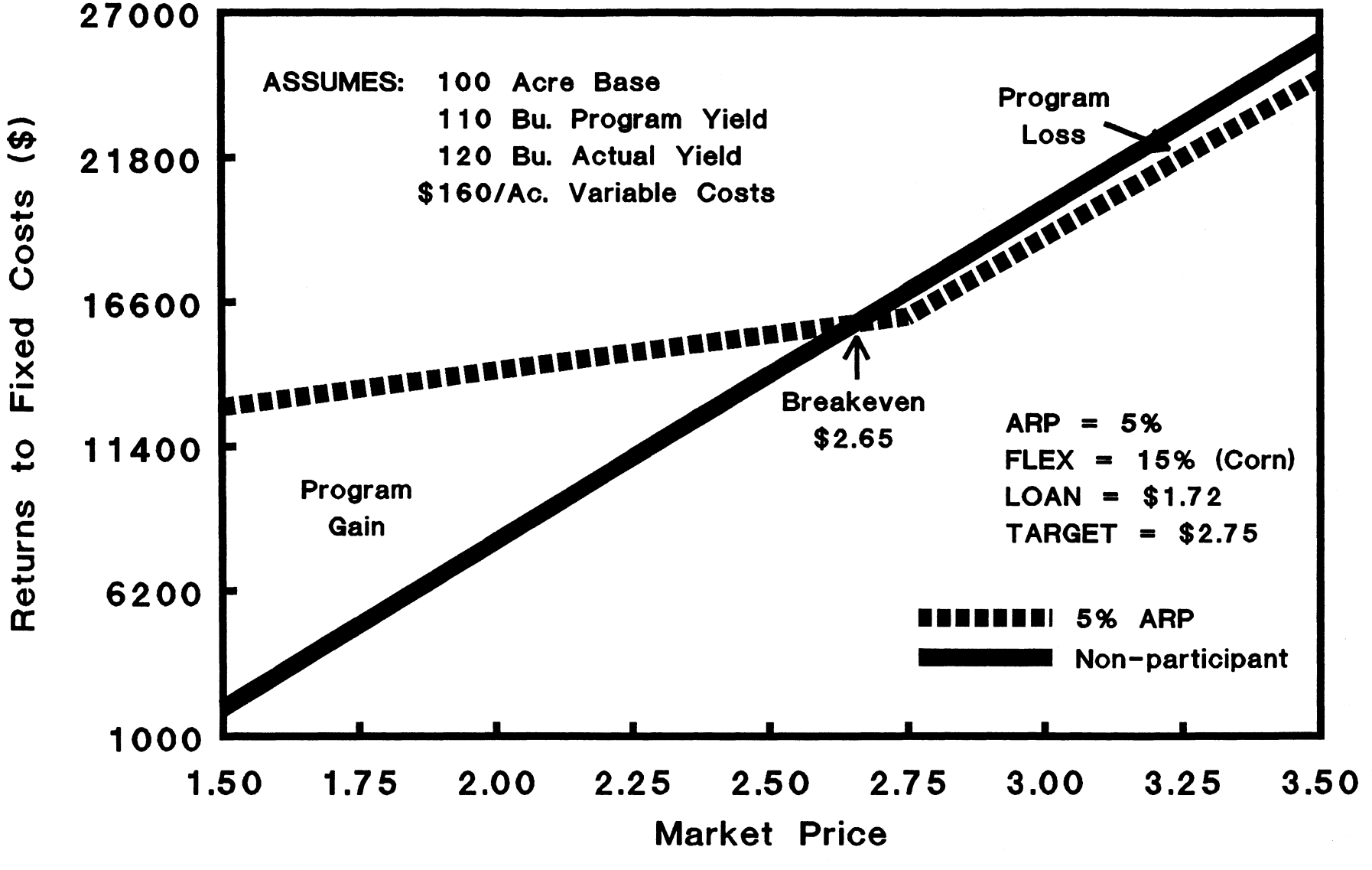


# CORN: OHIO AVERAGE FARM PRICES

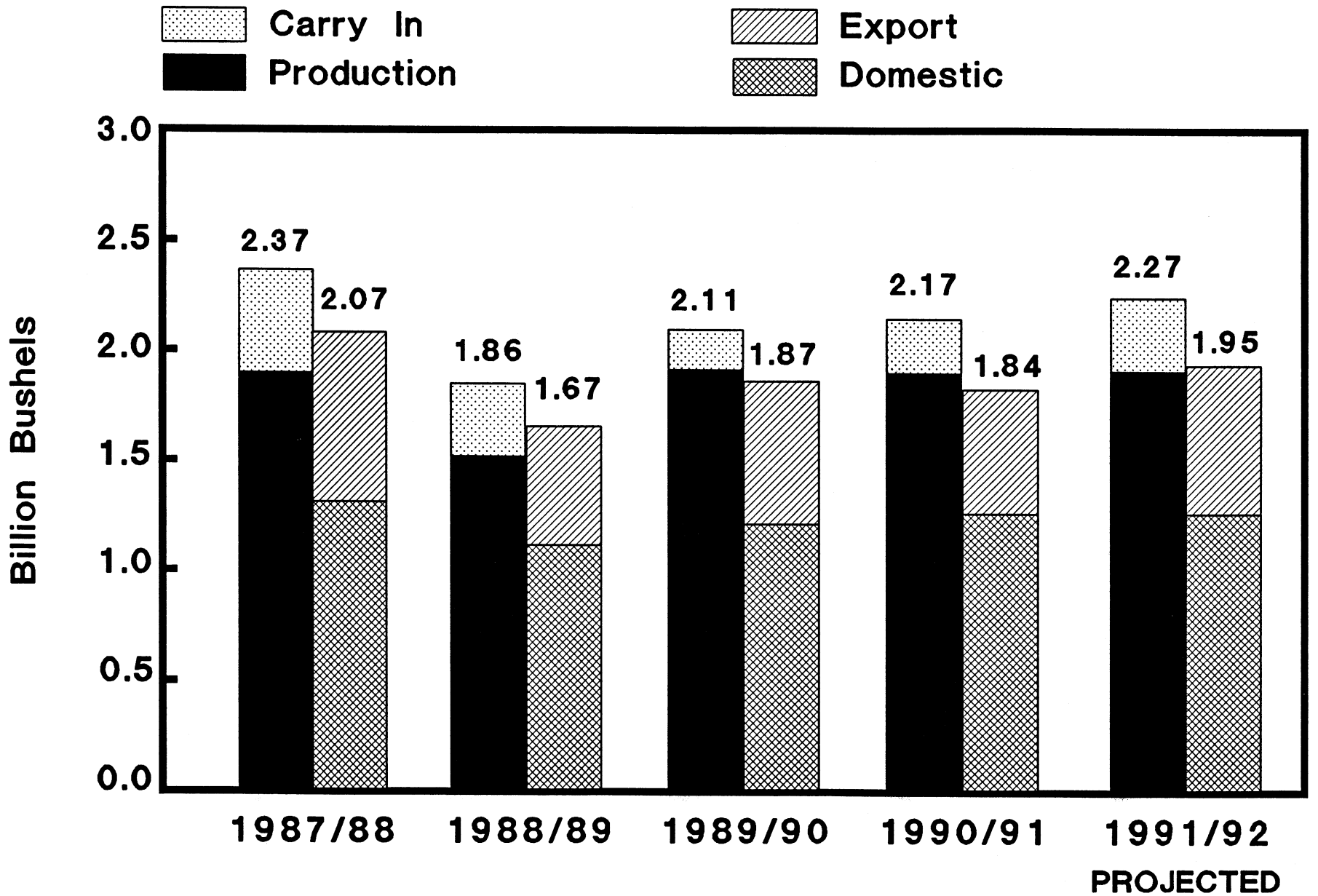



91-92 Nov-Aug Projected

# 1992 CORN PROGRAM



# SOYBEANS: SUPPLY AND USE



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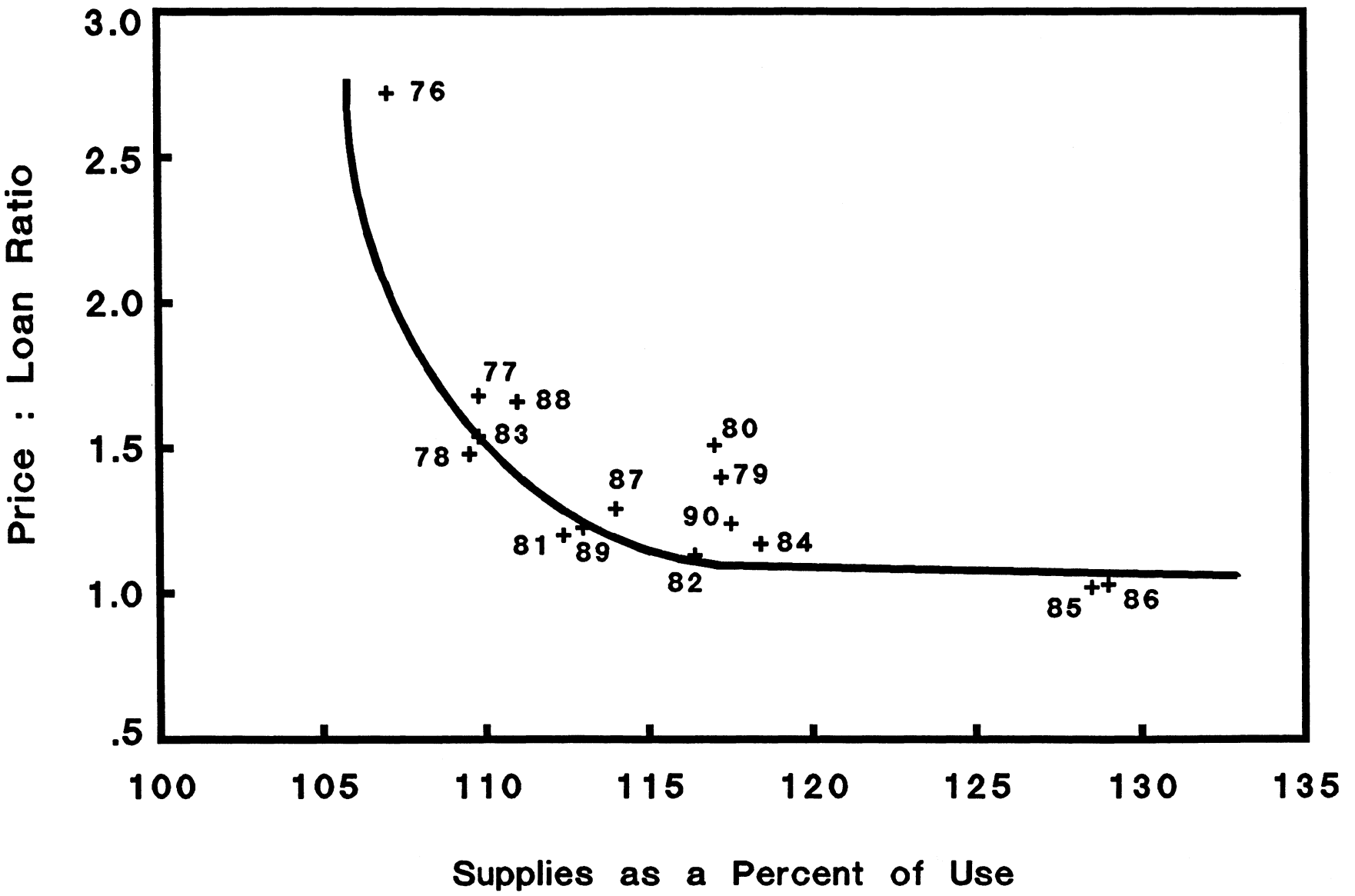
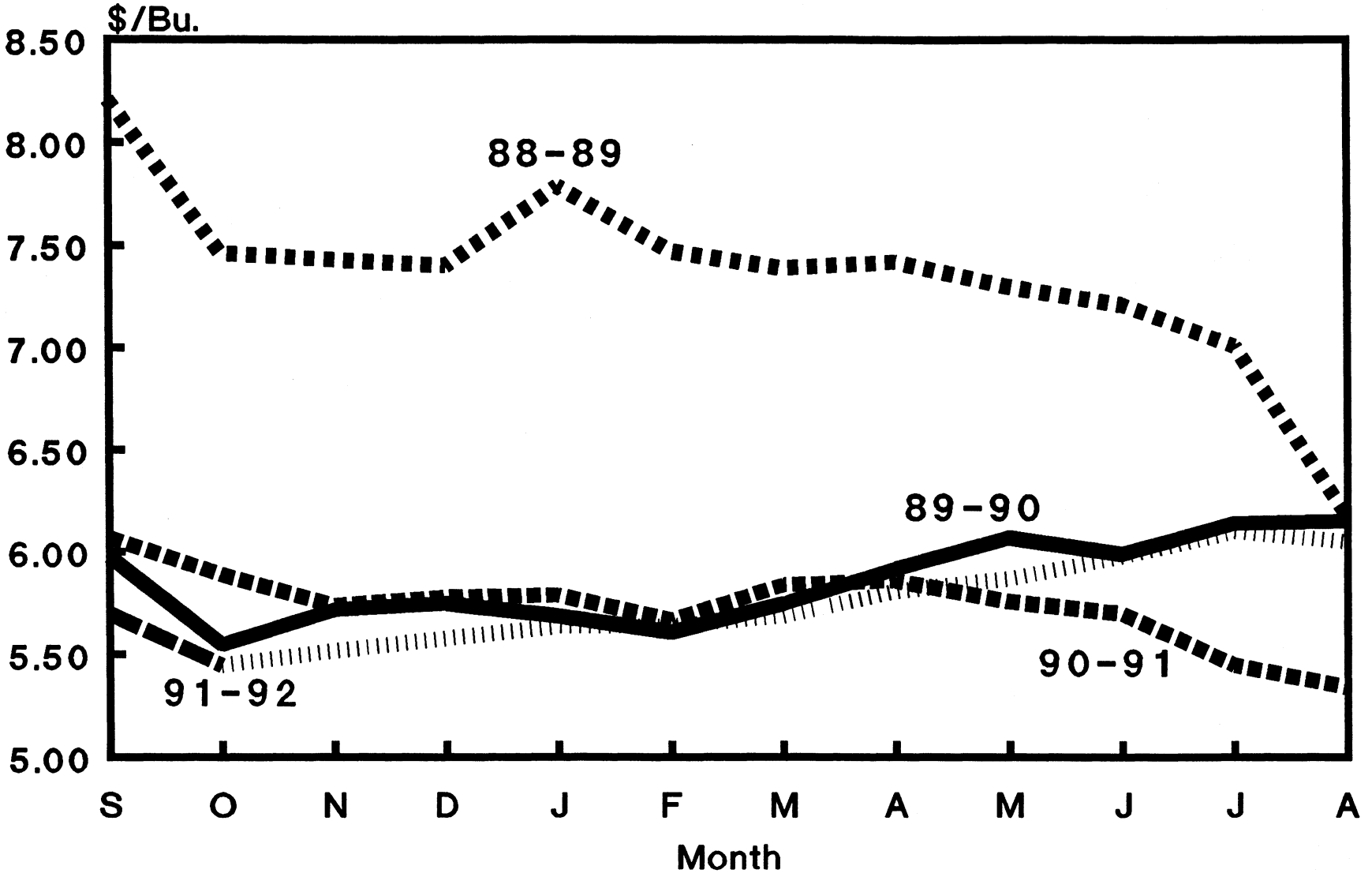


# 1991-92 SOYBEAN PRICE PROSPECTS
## (Decatur, Ill.)

| | Per Bu. | Price | Value |
|---|---|---|---|
| Meal (Ton) | 47.5# | $165-185 | $3.92 to 4.39 |
| Oil (Lb.) | 11.0# | $0.19-0.21 | $2.09 to 2.31 |
| Total | | | $6.01 to 6.70 |

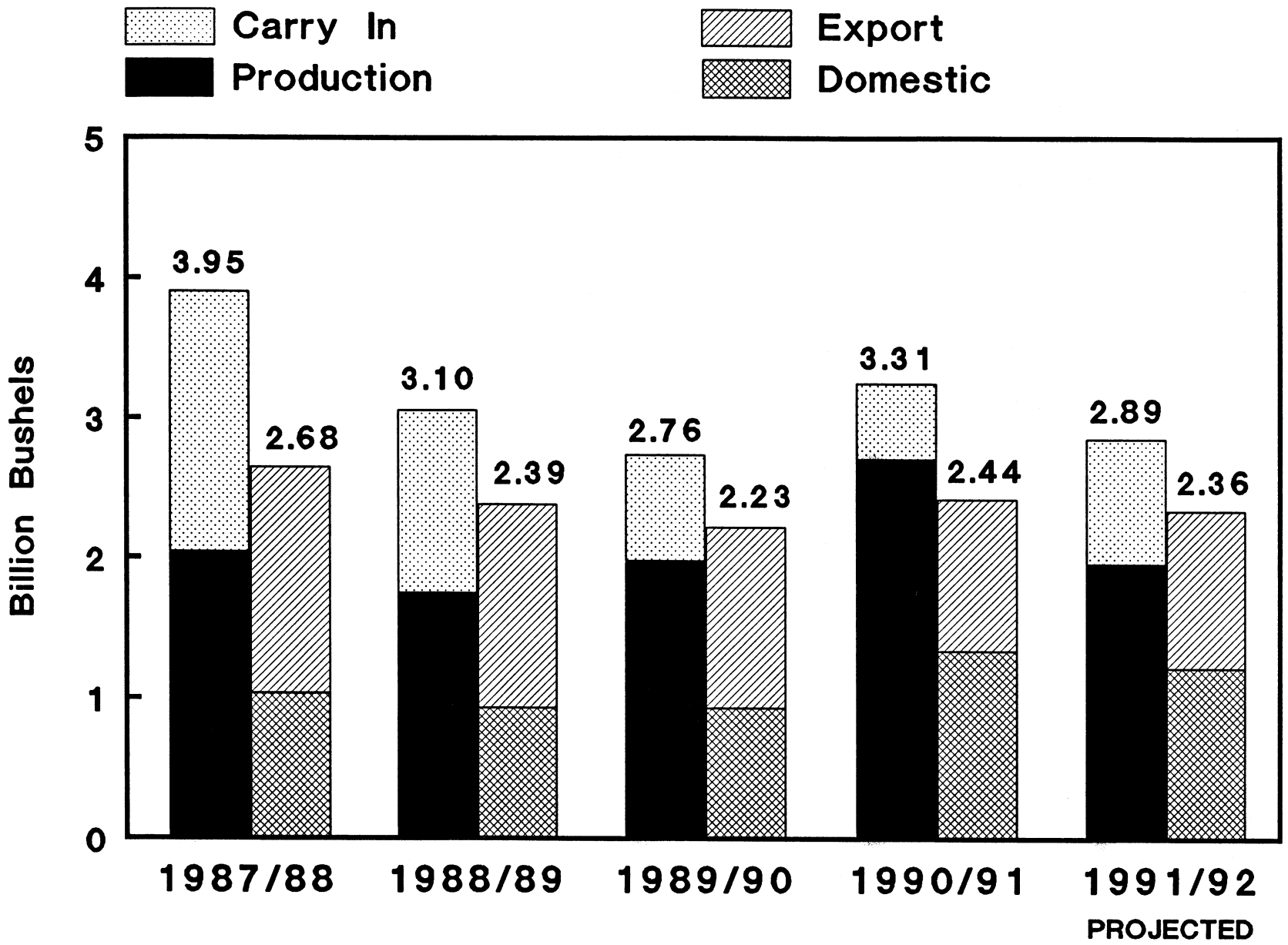
Minus Crushing Margins

# SOYBEANS: OHIO AVERAGE FARM PRICES




91-92 Nov-Aug Projected

# WHEAT: SUPPLY AND USE



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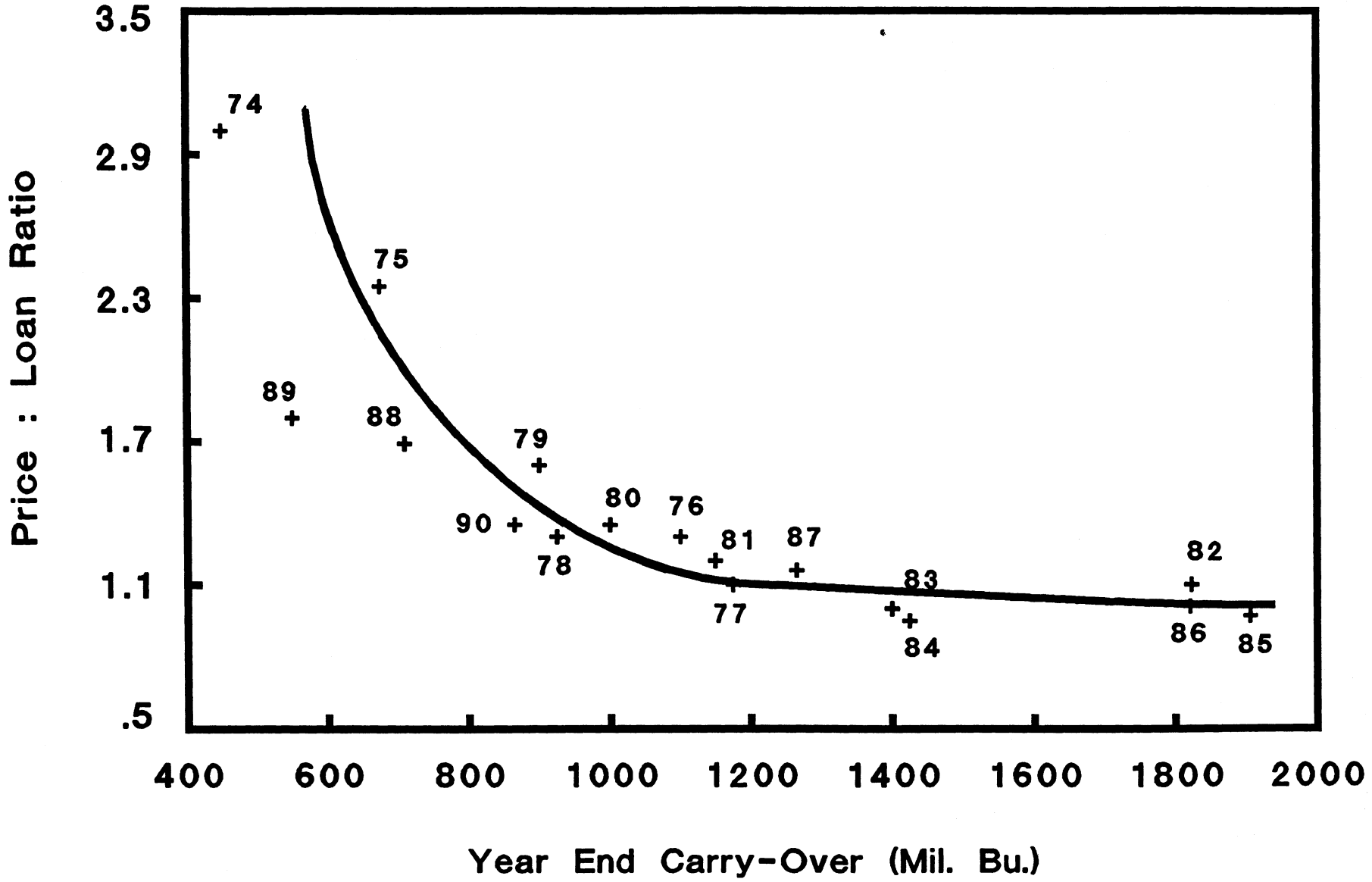

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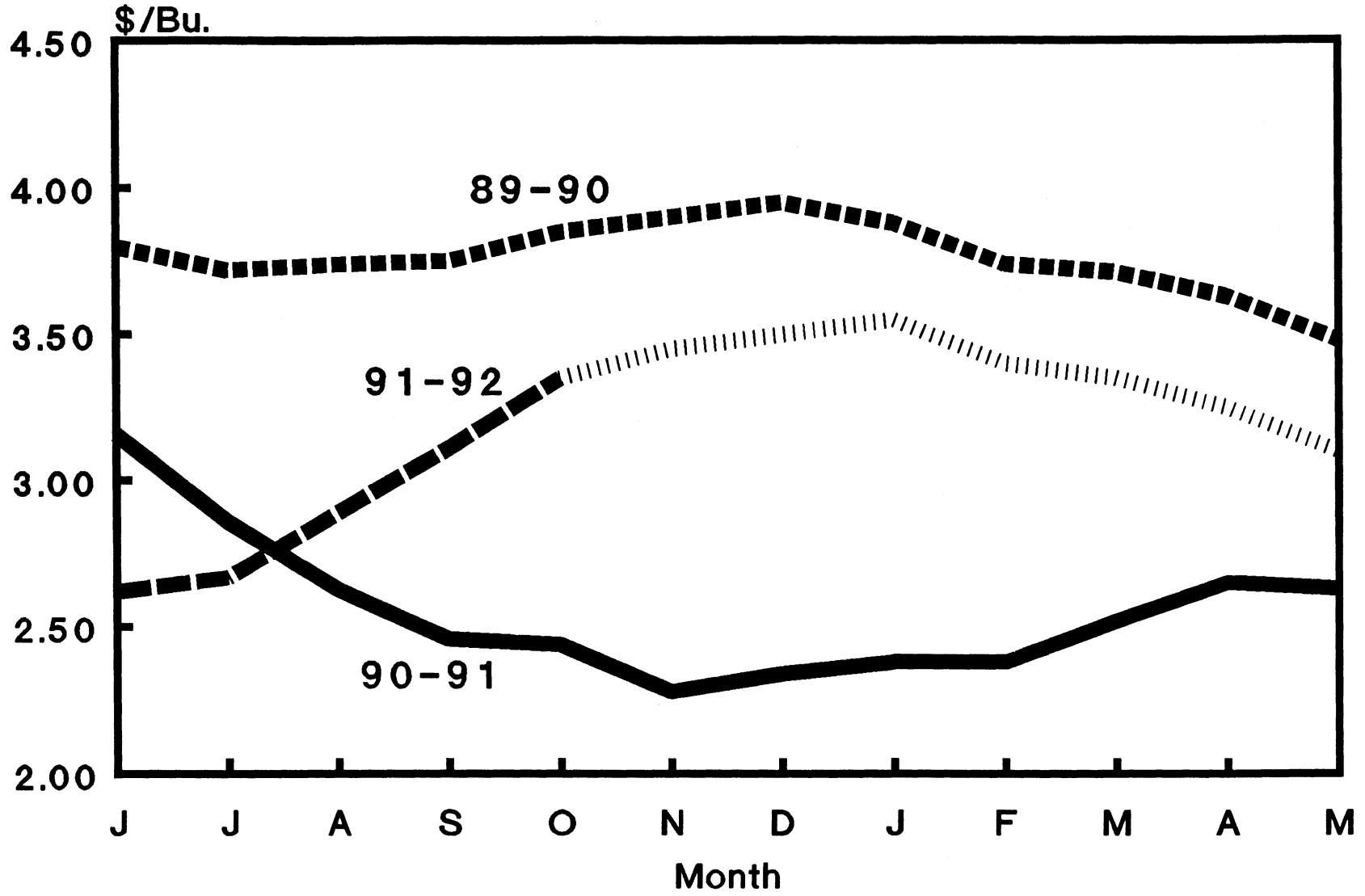
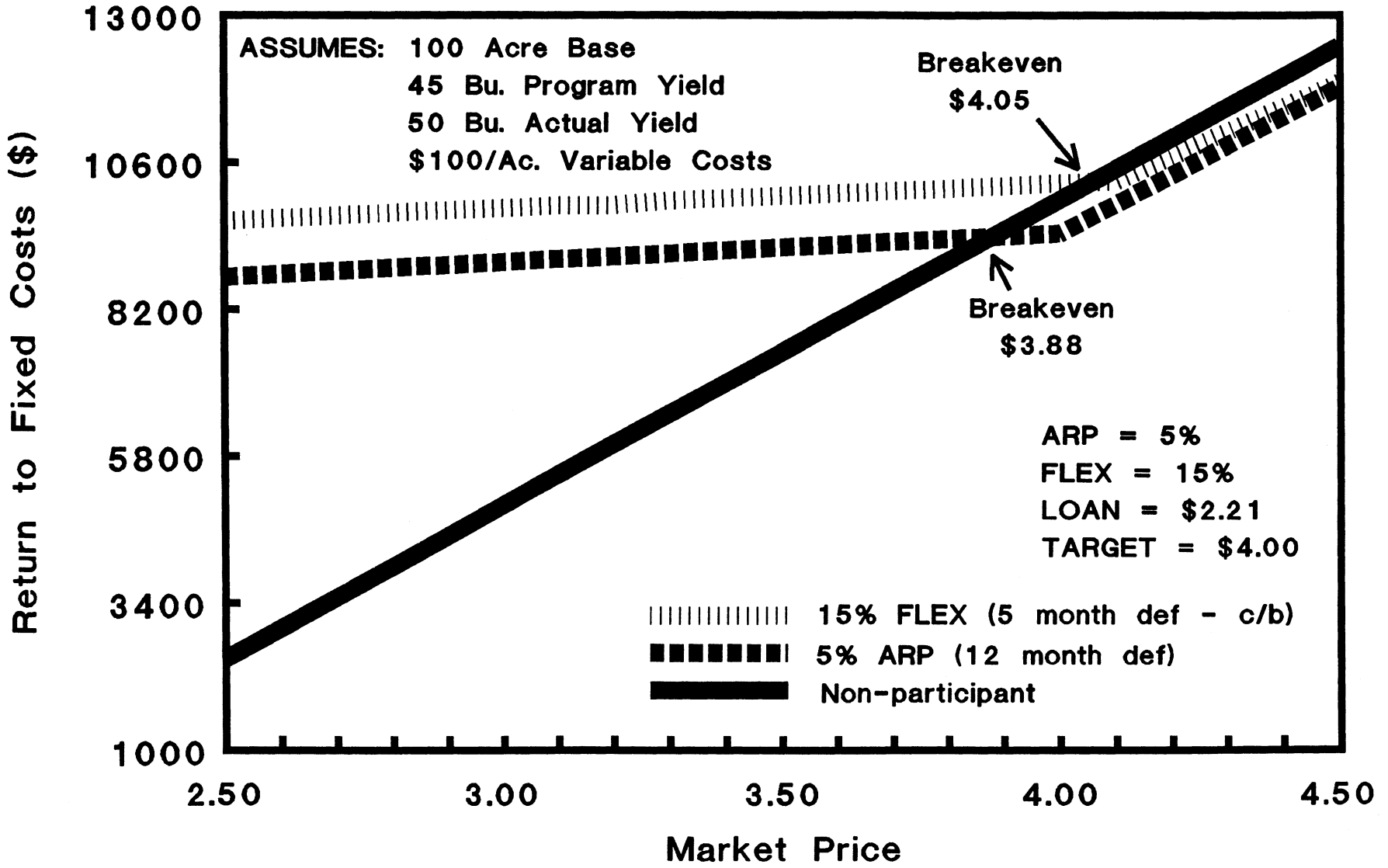



91-92 Nov-May Projected

# 1992 WHEAT PROGRAM



# 1992 FLEX ACRES ECONOMICS

| per acre | Corn | Soybeans | Wheat | Oats | Canola |
|---|---|---|---|---|---|
| Yield (bu.) | 120 | 40 | 50 | 75 | 40 |
| Market Price ($/bu.) | 2.50 | 5.75 | 3.00 | 1.40 | 5.25 |
| Market Returns ($) | 300 | 230 | 150 | 105 | 210 |
| Variable Costs ($) | 160 | 110 | 100 | 70 | 100 |
| Market Returns to Fixed Costs ($) | 140 | 120 | 50 | 35 | 110 |